

Amendments to Claims:

This listing of claims will replace all prior versions and listings of claims in the instant application:

Listing of Claims:

1. (Currently Amended) A battery charging system for use with an induction charger, comprising:

a plurality of secondary coils coupled to a corresponding plurality of cells for simultaneously receiving magnetic flux produced by a primary coil of the induction charger when said plurality of secondary coils is placed proximately to a base coupled to the induction charger, each of said plurality of secondary coils having a plurality of turns; and

a corresponding control circuit coupled to each of said plurality of secondary coils for controlling a number of turns of each of said secondary coils that are used in charging at least one for simultaneously charging the plurality of cells.

2. (Currently Amended) The battery charging system of claim 1, wherein said control circuit controls said number of turns responsive to at least one condition from the group consisting of a state of charge, a desired voltage to be applied to the corresponding of said at least one cell of said secondary coil, a temperature of said at least one cell, and a charge current.

3. (Currently Amended) The battery charging system of claim 1, wherein each of said plurality of secondary coils further comprises a plurality of taps, each of said taps providing an electrical connection to said secondary coil.

4. (Original) The battery charging system of claim 3, wherein a flow of time-varying electric current through said primary coil generates a voltage potential between at least two of said plurality of taps.

5. (Original) The battery charging system of claim 4, further comprising at least one switch responsive to a control signal generated by said control circuit, said switch operable between a first position wherein a first voltage is applied from a first of said plurality of taps to said at least one cell, and a second position wherein a second voltage is applied from a second of said taps to said at least one cell.

6. (Original) The battery charging system of claim 5, wherein said switch comprises at least one device selected from the group consisting of a transistor, a relay, and a mechanical switch.

7. (Currently Amended) The battery charging system of claim 1, wherein ~~said each~~ secondary coil[,]~~said and corresponding~~ control circuit[,]~~and said corresponding~~ cell are contained within a battery.

8. (Currently Amended) The battery charging system of claim 1, wherein ~~said each~~ secondary coil and ~~said corresponding~~ control circuit and corresponding cell are contained within a battery operated device.

9. (Currently Amended) The battery charging system of claim 8, wherein said corresponding cell is detachable from said battery operated device.

10. (Currently Amended) An induction charging system, comprising:

(a) an induction charger, comprising:

a base for charging;

a primary coil coupled to said base; and

a power supply which supplies a time-varying electric current to said primary coil; and

(b) a plurality of battery operated devices each carrying at least one cell, wherein each of the battery operated devices includes a first-battery charging system for simultaneously charging the at least one cell when the plurality of battery operated devices is placed proximately to said base, said first-battery charging system comprising:

a secondary coil for receiving magnetic flux produced by said primary coil of said induction charger, said secondary coil having a plurality of turns and generating an output voltage responsive to said received magnetic flux; and

a control circuit for controlling a number of turns of said secondary coil ~~that are used for said to adjust the output voltage generation, said number of turns being controlled in response at least in part according to a state of charge of desired voltage to be applied to~~ said at least one cell.

11. (Currently Amended) The induction charging system of claim 10, wherein the base is substantially flat. further comprising:

~~at least a second battery charging system having a secondary coil for receiving magnetic flux produced by said primary coil of said induction charger;~~

~~wherein a second cell is charged by said second battery charging system simultaneously with a charging of said first cell.~~

12. (Original) The charging system of claim 10, wherein said control circuit further controls said number of turns responsive to at least one condition from the group consisting of a temperature of said at least one cell and a charge current.

13. (Currently Amended) A method for simultaneously charging a plurality of cells each coupled to a corresponding plurality of secondary coils~~with an induction charger~~, comprising the steps of:

placing the plurality of secondary coils and corresponding plurality of cells proximately to a base of an induction charger;

receiving ~~with a~~ at the plurality of secondary coils a magnetic flux produced by the induction charger, each of said plurality of secondary coils having a plurality of turns that are used in charging the corresponding plurality of cells; and

controlling a number of turns for each of said plurality of secondary coils to generate a desired voltage to be applied to the corresponding cell of said secondary coil.

14. (Currently Amended) The method of claim 13, wherein said controlling a number of turns step is further responsive to at least one condition from the group consisting of ~~a state of charge of said cell~~, a temperature of said cell, and a charge current.

15. (Original) The method of claim 13, further comprising the step of providing a plurality of taps on said secondary coil, each of said taps providing an electrical connection to said secondary coil.

16. (Currently Amended) The method of claim 15, further comprising the step of supplying a flow of time-varying electric current through ~~said a~~ primary coil of said induction charger to generate a voltage potential between at least two of said plurality of taps.

17. (Currently Amended) The method of claim 16, further comprising the steps of:

providing at least one switch responsive to a control signal generated by ~~said a~~ control circuit; and

signaling said switch to transition between a first position wherein a first voltage is applied from a first of said taps to the corresponding cell coupled to said secondary coil, and a second position wherein a second voltage is applied from a second of said taps to said cell.

18. (Original) The method of claim 17, wherein said switch comprises at least one device selected from the group consisting of a transistor, a relay, and a mechanical switch.

19. (Currently Amended) A method for simultaneously charging a plurality of cells each coupled to a corresponding plurality of secondary coils~~with an induction charger~~, comprising the steps of:

placing the plurality of secondary coils and corresponding plurality of cells proximately to a base of an induction charger;

supplying a magnetic flux from said base for charging ~~at least one~~the plurality of cells;

receiving said magnetic flux ~~using a first~~at the plurality of secondary coils;

selectively controlling the number of turns of said ~~first~~plurality of secondary coils in response at least in part to a ~~state of charge~~desired voltage to be applied to ~~of said at least one~~plurality of cells; and

generating an output voltage at each of the plurality of secondary coils in response to said received magnetic flux and selectively controlled number of turns of each of said first plurality of secondary coils.

20. (Currently Amended) The method of claim 19, wherein said number of turns are ~~controlled~~step is further responsive to at least one condition from the group consisting of ~~a state of charge of said at least one cell,~~ a temperature of said at least one cell, and a charge current.

21. (Currently Amended) The method of claim ~~20~~19, wherein the supplying step the magnetic flux is provided by the base having a substantially flat surface. ~~further comprising the step of providing at least a another cell which is charged by a second secondary coil receiving magnetic flux from said induction charger, said second cell being charged simultaneously with said charging of said first cell.~~